

**AMENDMENTS TO THE CLAIMS:**

The listing of claims will replace all prior versions, and listings of claims in the application:

**LISTING OF CLAIMS:**

1. (Currently amended) A computer-implemented method of detecting new events comprising the steps of:

determining at least one story characteristic based on an average story similarity story characteristic and a same event-same source story characteristic;

determining a source-identified story corpus, each story associated with at least one event;

determining a source-identified new story associated with at least one event;

determining story-pairs based on the source-identified new-story and each story in the source-identified story corpus;

determining at least one inter-story similarity metric for the story-pairs; wherein the inter-story similarity metrics are comprised of at least one story frequency model; and at least one story characteristic frequency model combined using terms weights; and wherein an event frequency is determined based on term  $t$  and ROI category  $r_{max}$  from the formula:  $ef_{r_{max}}(t) = \max_{r \in R} (ef(r, t))$ ;

determining at least one adjustment to the inter-story similarity metrics based on at least one story characteristic; and

outputting a new story event indicator if the event associated with the new story is similar to the events associated with the source-identified story corpus based on the inter-story similarity metrics and the adjustments.

2. (Previously presented) The method of claim 1, wherein the inter-story similarity metric is dynamically adjusted based on at least one of subtraction and division.

3. (Original) The method of claim 1, wherein the inter-story similarity metric is at

least one of a probability based inter-story similarity metric and a Euclidean based inter-story similarity metric.

4. (Original) The method of claim 3, wherein the probability based inter-story similarity metric is at least one of a Hellinger, a Tanimoto, a KL divergence and a clarity distance based metric.

5. (Original) The method of claim 3, wherein the Euclidean based similarity metric is a cosine-distance based metric.

6. (Original) The method of claim 1, wherein the inter-story similarity metrics are determined based on a term frequency-inverse story frequency model.

7. (Original) The method of claim 1, wherein the inter-story similarity metrics are comprised of: at least one story frequency model; and at least one event frequency model combined using terms weights.

8. (Canceled)

9. (Currently amended) The method of claim-8\_1, where the adjustments based on the story characteristics are applied to the term weights.

10. (Currently amended) The method of claim-8\_1, where the adjustments based on the story characteristics are applied to the inter-story similarity metrics.

11. (Original) The method of claim 1, wherein the inter-story similarity metrics are comprised of at least one term frequency-inverse event frequency model and where the events are classified based on at least one of: story labels and a predictive model.

12. (Canceled)

13. (Currently amended) The method of claim 8, A computer-implemented method of detecting new events comprising the steps of:

determining at least one story characteristic based on an average story similarity story characteristic and a same event-same source story characteristic;

determining a source-identified story corpus, each story associated with at least one event;

determining a source-identified new story associated with at least one event;

determining story-pairs based on the source-identified new-story and each story in the source-identified story corpus;

determining at least one inter-story similarity metric for the story-pairs; wherein the inter-story similarity metrics are comprised of at least one story frequency model; and at least one story characteristic frequency model combined using terms weights; and wherein an inverse event frequency is determined based on term  $t$ , and events  $\theta$

and  $r_{\max}$  in the set of  $ROI$  categories from the formula:  $IEF(t) = \log \left[ \frac{N_{\theta, r_{\max}}}{ef_{r_{\max}}(t)} \right];$

determining at least one adjustment to the inter-story similarity metrics based on at least one story characteristic; and

outputting a new story event indicator if the event associated with the new story is similar to the events associated with the source-identified story corpus based on the inter-story similarity metrics and the adjustments.

14. (Currently amended) The method of claim 8, A computer-implemented method of detecting new events comprising the steps of:

determining at least one story characteristic based on an average story similarity story characteristic and a same event-same source story characteristic;

determining a source-identified story corpus, each story associated with at least one event;

determining a source-identified new story associated with at least one event;

determining story-pairs based on the source-identified new-story and each story in the source-identified story corpus;

determining at least one inter-story similarity metric for the story-pairs; wherein

the inter-story similarity metrics are comprised of at least one story frequency model;  
and at least one story characteristic frequency model combined using terms weights;  
and wherein an inverse event frequency is determined based on term  $t$ , categories  $e$ ,  $r$   
and  $rmax$  in the set of  $ROI$  categories and  $P(r)$ , the probability of  $ROI$   $r$  from the formula:

$$IEF'(t) = \sum_{r \in R} P(r) \log \left[ \frac{N_{e,r}}{ef(r,t)} \right];$$

determining at least one adjustment to the inter-story similarity metrics based on  
at least one story characteristic; and

outputting a new story event indicator if the event associated with the new story  
is similar to the events associated with the source-identified story corpus based on the  
inter-story similarity metrics and the adjustments.

15. (Original) The method of claim 1 further comprising the step of determining a subset of stories from the source-identified story corpus and the source-identified new story based on at least one story characteristic.

16-36. (Canceled)

37. (Previously presented) The computer-implemented method of claim 1, in which the new event indicator is displayed on at least one of a visual, audio or tactile output device.

38-39. (Canceled)